

# Earned Value Management

## *Things to Know*

- ◆ There are only a few actual formulas on the exam
- ◆ There are some questions about the results that you would get from a given formula
- ◆ Think about the Big Picture-what does it really mean?
- ◆ Look for key words in the questions – if they are asking about variance, the answer option will include subtracting, but there will likely be a couple of options dividing. If asking about ratios or indexes, the answer option will include dividing.

# Main Terms to Know

- ◆ **EV** (Earned Value)

As of today, what is the budgeted cost of the work that is actually accomplished?

- ◆ **PV** (Planned Value)

As of today, what is the budgeted cost of the work that is scheduled to be completed?

- ◆ **AC** (Actual Cost)

As of today, what is the actual cost incurred for the work accomplished?

- ❖ **BAC** (Budget at Completion)

How much did we budget for the total project?

# Terms To Know

## ◆ **CV (Cost variance)**

Cost variance analysis measures the actual performance to date (earned value) against what's been spent (actual costs). If negative value, over budget. If 0 or positive value, on or under budget.

## ◆ **SV (schedule variance)**

Schedule variance analysis compares actual progress/performance to date (earned value) to estimated progress/performance (planned value). If negative value, behind schedule. If 0 or positive value, on or ahead of schedule.

## ❖ **CPI (Cost Performance Index)**

Measures value of work completed as of measurement date (earned value) against actual costs. Indicates cost efficiency for work completed.

## ◆ **SPI (Schedule Performance Index)**

Measures progress as of measurement date (earned value) against planned progress (planned value)



# Mnemonic: A Great way to Remember

EVM formulas

**CEA/SEP**

*On the right of the = signs, add a V after each, except the A;  
add a C (actual costs)*

*\*\*\*THIS IS A GREAT USE FOR THE DRY ERASE BOARD  
DURING THE EXAM!*

So,

$\underline{C}V = \underline{E}V - \underline{A}C$  (earned value – actual costs)

$\underline{S}V = \underline{E}V - \underline{P}V$  (earned value – planned value)

$\underline{C}PI = \underline{E}V / \underline{A}C$  (earned value / actual costs)

$\underline{S}PI = \underline{E}V / \underline{P}V$  (earned value / planned value)

